

LFC – HVO Strategic fuel purchasing

Report to:

Investment & Finance Board
Commissioner's Board
Deputy Mayor's Fire Board
London Fire Commissioner

Date:

21 May 2026
10 June 2026
30 June 2026

Report by:

Paul Cook (Head of Energy and Carbon Reduction)

Authorising Head of Service:

Laura Birnbaum (Assistant Director TSS/Fleet and Property)

Report classification:

For decision

For publication

Values met

Service
Integrity
Learning

I agree the recommended decision below.



Jonathan Smith
London Fire Commissioner

This decision was remotely

Date **signed on 24 August 2026**

PART ONE

Non-confidential facts and advice to the decision-maker

Executive Summary

As an interim decarbonisation measure agreed in 2024, London Fire Brigade (LFB) introduced the use of Hydrogenated Vegetable Oil (HVO) as an alternative to mineral diesel.

HVO has been supplied successfully for an 18-month period. During 2025 alone this resulted in an estimated 600-tonne reduction in CO₂ emissions. HVO is a drop-in fuel requiring no vehicle modifications and has been deployed across LFB's existing diesel fleet without operational issues.

This paper seeks approval to continue the procurement and supply of HVO fuel to all 37 strategic bulk fuel tanks across the LFB estate. Approval would enable the continued use of HVO by fleet vehicles operating from locations with strategic fuel storage, pending the transition to fully electric fire appliances.

HVO delivers a minimum 90% reduction in lifecycle CO₂ emissions compared to conventional mineral diesel. It is manufactured from renewable feedstocks sourced predominantly from Europe and the Americas.

For the London Fire Commissioner

The London Fire Commissioner agrees that a contract for the purposes of the procurement and usage of HVO at 37 strategic bulk fuel locations for three years be entered into in accordance with the arrangements set out below.

1. Introduction and background

- 1.1 Hydrogenated Vegetable Oil (HVO) is a paraffinic, synthetic diesel fuel that acts as a direct replacement for conventional mineral diesel. Unlike first-generation biodiesel, hydrogen rather than methanol is used as the catalyst in the production process, resulting in significantly cleaner combustion characteristics.
- 1.2 The chemical structure of HVO is almost identical to mineral diesel, enabling it to be used as a *drop-in alternative* with no modifications required to existing vehicles or fuel infrastructure. HVO is covered by European Standard EN 15940 and is widely supported by commercial vehicle manufacturers under standard servicing and warranty arrangements.
- 1.3 Due to the expected CO₂ benefits of using HVO to reduce carbon emissions, this procurement is currently scheduled to operate until fully electric fire appliances are

delivered into LFB operations.

- 1.4 The procurement process will tender for the best prices and service delivery to ensure the supply of HVO is manageable, on time and available to all 37 bulk strategic fuel tanks.
- 1.5 Historically, HVO has been approximately 30% more expensive than mineral diesel. At the time of writing, due to geopolitical instability HVO pricing is currently broadly comparable with mineral diesel and is not expected to result in additional cost. This link outlines the costs for HVO over the past few years against road diesel costs. This is produced by the RAC: [Price of bio fuels v fossil fuels](#).
- 1.6 HVO fuel is additionally used to refill the stand-by generators at all fire stations as this contributes to LFB carbon emissions reduction targets. The Facility Management provider uses fuel from the strategic bulk fuel tanks for the generators as HVO does not become stale as no mineral decomposition takes place.
- 1.7 When used in road transport HVO, like all chemical fuels, continue to be more costly than electric vehicles on price per mile comparison. Recent studies have identified that the cost of using HVO is 79% more expensive than the same journeys using an electric vehicle. The taxes applied to Western Europe liquid fossil fuels continue to make HVO an attractive fuel to Internal Combustion Engine manufacturers.

2 Objectives and expected outcomes

- 2.1 This procurement supports the Mayoral objectives for functional bodies to reduce carbon emissions and create cleaner air quality for London.
- 2.2 The objectives set out for the project in the business case are as follows:
 - **Fleet objectives:** fully support the delivery of LFB services, be environmentally sustainable, used efficiently, shared with community and partners whilst retaining a strong LFB identity and inclusive to all users.
 - **Delivery objectives:** being deliverable by end 2026, being affordable for LFB, providing acceptable value for money overall.
- 2.3 Approval is sought to commit expenditure and resources to continue to procure HVO as an alternative to diesel fuel. Following the successful completion of the procurement LFB will continue to provide HVO fuel to all 37 strategic reserve tanks.
- 2.4 Key project risks include;
 - Fuel price volatility: HVO has historically been more expensive than diesel however global instability affects fuel prices rapidly during periods of disruption and reduces slowly during stabilisation making this a competitive fuel source at present. The bulk purchase of fuel is cheaper than using the forecourts on a like for like basis, noting that biofuel is not available on the majority of UK forecourts and is only available wholesale.

<https://www.racfoundation.org/data/price-of-bio-diesel-v-fossil-fuel>

- 2.5 A breakdown of the estimated cost for this proposal is provided in Part 2 of this governance paper.
- 2.6 The bulk strategic fuel supply is currently offered to emergency services within London and the Home counties during times of fuel shortage in the UK. This decision to provide emergency services fuel is currently managed by the Home Office in collaboration with London Fire Brigade (LFB), Metropolitan Police Service (MPS) and London Ambulance Service (LAS).

3 Values Comments

- 3.1 The LFC notes the Fire Standards Board requirements around adopting and embedding the Core Code of Ethics at an individual and corporate level. Following extensive engagement, the LFC has introduced Brigade values which build on and do not detract from the Code of Ethics.
- 3.2 Service – The procurement on the open market ensures the Brigade purchase HVO fuel at a cost-effective rate which provides good value and a quality product delivered on time.
- 3.3 Integrity – Procurement of this fuel source on the open market ensures all suppliers can bid to supply the brigade with strategic fuel reserves which provides an honest route to market to ensure exceptional value for money.
- 3.4 Learning – The Energy and Carbon Reduction team, conducted extensive research into biofuels and how they can be used by the Brigades appliances. This research included how the fuel is transported to the UK, and how and where it is grown. This was followed by direct contact with motor vehicle manufacturers to ensure they approved of using HVO and that it could be mixed with any ratio of mineral diesel fuel.

4 Equality Comments

- 4.1 The LFC and the Deputy Mayor for Planning, Regeneration and the Fire Service are required to have due regard to the Public Sector Equality Duty (section 149 of the Equality Act 2010) when taking decisions. This in broad terms involves understanding the potential impact of policy and decisions on different people, taking this into account and then evidencing how decisions were reached.
- 4.2 It is important to note that consideration of the Public Sector Equality Duty is not a one-off task. The duty must be fulfilled before taking a decision, at the time of taking a decision, and after the decision has been taken.
- 4.3 The protected characteristics are: age, disability, gender reassignment, pregnancy and maternity, marriage and civil partnership (but only in respect of the requirements to have due regard to the need to eliminate discrimination), race (ethnic or national origins, colour or nationality), religion or belief (including lack of belief), sex, and sexual orientation.

- 4.4 The Public Sector Equality Duty requires decision-takers in the exercise of all their functions, to have due regard to the need to:
- eliminate discrimination, harassment and victimisation and other prohibited conduct.
 - advance equality of opportunity between people who share a relevant protected characteristic and persons who do not share it.
 - foster good relations between people who share a relevant protected characteristic and persons who do not share it.
- 4.5 Having due regard to the need to advance equality of opportunity between persons who share a relevant protected characteristic and persons who do not share it involves having due regard, in particular, to the need to:
- remove or minimise disadvantages suffered by persons who share a relevant protected characteristic where those disadvantages are connected to that characteristic.
 - take steps to meet the needs of persons who share a relevant protected characteristic that are different from the needs of persons who do not share it.
 - encourage persons who share a relevant protected characteristic to participate in public life or in any other activity in which participation by such persons is disproportionately low.
- 4.6 Where required the steps involved in meeting the needs of disabled persons that are different from the needs of persons who are not disabled include steps to take account of disabled persons' disabilities.
- 4.7 Having due regard to the need to foster good relations between persons who share a relevant protected characteristic and persons who do not share it involves having due regard, in particular, to the need to:
- tackle prejudice
 - promote understanding.

5 Other considerations

Workforce comments

- 5.1 The use of HVO is identified as reducing emissions and particulates in vehicle exhaust. This may provide a positive effect on vehicle operators when near a pumping appliance during an incident or at station.

Sustainability comments

- 5.2 This report discusses the implementation of a fully functioning bulk fuel monitoring system. This supports the ongoing carbon reporting data required by the Sustainable Development Team.

- 5.3 This report does not introduce any significant sustainability impacts. Where new policies and/or corporate projects arise, they are subject to the Brigade's sustainable development impact assessment process.

Procurement comments

- 5.4 The sourcing of the HVO will be in compliance with the Procurement legislation and the LFC Scheme of Governance.
- 5.5 The route to market will be the Government Commercial Agency (GCA), previously known as the Crown Commercial Service, framework National Fuels 3 – Lot 11, which is a compliant framework.
- 5.6 A mini competition will be carried out using this framework lot to leverage the LFCs requirements with other public sector organisations.

Communications comments

- 5.7 Communications were provided for the initial supply of HVO during 2024 and this should be followed up to explain the procurement contract has been extended for up to a further 5 years. This means that fire station crews should continue to order HVO fuel using the SAP system.

6 Financial comments

- 6.1 This report requests the authority to commit revenue expenditure of the procurement of a 3-year contract with a 2-year extension for the supply of HVO as fuel for fire appliances. We currently procure this fuel on the open market, and this paper is seeking authority to formalise this through a contractual arrangement to mitigate the price volatility in HVO fuel.
- 6.2 The budget for this project is funded from the Fire Stations fuel budget. This arrangement would not represent an incremental pressure on the fuel budget as HVO is used in place of mineral diesel for fire appliances.
- 6.3 In 2026/27, there is not expected to create a budget pressure arising from the purchase of HVO as the per litre price of HVO is trading below that of mineral diesel due to the ongoing US-Iran conflict and the continuing blockade of the Strait of Hormuz. However, in future years, as the price of diesel starts to reduce back to pre-war level, it is expected to create a budget pressure although this cannot be accurately quantified at present. The actual costs of HVO are very difficult to estimate as the cost of HVO is part of the global oils marketplace and subject to price fluctuations.
- 6.4 Please note that this paper is linked to the *Procurement for the Supply of Fuel Cards for the use of Fire Appliances at Public Forecourts* paper which is also requesting governance approval. Both papers impact the Fire Stations Fuel budget and will be carefully monitored during the 2026/27 financial year along with any required draw on the General Reserve.
- 6.5 With regard to non-pay inflation: all LFC contractual inflationary increases are reviewed on an annual basis. The LFC budgets for non-pay inflation on an item-by-item basis, and the LFC

will review those assumptions as part of its budget process for 2027/28. If inflation rates are above current assumptions a resulting budget increase will need to be submitted as part of LFC's annual submission to the Mayor's GLA Group budget process and/or the contract will need to be reviewed to assess whether it is possible to reduce the annual cost via a reduction in service. If inflationary increases result in in-year financial pressures, this will be reported on as part of regular financial reporting and compensating savings identified or spend reductions agreed if required.

- 6.6 LFC standard terms and conditions include clauses on indexation and termination that can be utilised if inflationary pressures affect the performance of the contract. If a contract is no longer viable then LFC will seek to terminate it on this basis, or work with suppliers to pause delivery and/or renegotiate what is being delivered. This is preferable to inserting a break clause for inflation as such pressures apply across the market so it is unlikely that benefits will be gained from terminating a contract to go back out for competition.

7 Legal Comments

- 7.1 Under section 9 of the Policing and Crime Act 2017, the London Fire Commissioner (the "LFC") is established as a corporation sole with the Mayor appointing the occupant of that office. Under section 327D of the GLA Act 1999, as amended by the Policing and Crime Act 2017, the mayor may issue to the LFC specific or general directions as to the manner in which the holder of that office is to exercise his or her functions.
- 7.2 By direction dated 1 April 2018, the Mayor set out those matters, for which the LFC would require the prior approval of either the Mayor or the Deputy Mayor.
- 7.3 Paragraph (b) of Part 2 of the said direction requires the LFC to seek the prior approval of the Deputy Mayor before "[a] commitment to expenditure (capital or revenue) of £150,000 or above as identified in accordance with normal accounting practices...".
- 7.4 The Deputy Mayor's approval is accordingly required for the LFC to purchase HVO fuel which has an estimated cost exceeding £150,000 and is set out in full in Part 2 of the report.
- 7.5 The arrangements proposed is consistent with the LFC's duty under section 7 (2)(a) of the Fire and Rescue Services Act 2004 ("2004 Act") to secure the provision of personnel, services, and equipment necessary to efficiently meet all normal requirements for firefighting and under section 5A of the 2004 Act to do anything it considers appropriate for the purposes of the carrying out of any of its functions.
- 7.6 The report sets out details for the proposed procurement, and procurement via the GCA framework is compliant with the Public Contracts Regulations 2015 and the LFC's standing orders on procurement. The GCA have conducted a compliant procurement in accordance with regulation 33 of the Public Contracts Regulations 2015 to set up GCA framework National Fuels 3 , GCA have aggregated public sector requirements and undertaken a further competition, from which the LFC is able to make a compliant call off award of contract.

List of appendices

Appendix	Title	Open or confidential*
1	EIA	Open
2	SDIA	Open

Part two confidentiality

Only the facts or advice considered to be exempt from disclosure under the FOI Act should be in the separate Part Two form, together with the legal rationale for non-publication.

Is there a Part Two form: Yes

Part 1: Equality Impact Assessment – submitter to complete

Before carrying out an Equality Impact Assessment (EIA), you should familiarise yourself with the guidance notes (see Appendix) and our other resources located within the [EIA section on Hotwire](#)

An EIA should be carried out whenever you are starting (or reviewing) any major new activity/programme/policy/project/strategy/campaign *, or where you propose changes or a review of the previous one.

*In this document, any kind of activity/programme/policy/project will be called an ACTIVITY for an easy read, while you specify the type of your event from your end.

The purpose of an EIA is to meet and justify the legal obligation required under the [Public Sector Equality Duty](#) (PSED), namely, the 'DUE REGARD' that documents that your activity/programme/policy will:

- 1. eliminate discrimination, harassment, and victimisation
- 2. advance equality of opportunity
- 3. foster good relations between people who share a relevant protected characteristic and people who do not share it.

In the EIA, you need to show that your activity meets the 3 conditions of the due regard, as listed above, and provide any relevant information showing that your activity caters for people with protected characteristics (where applicable), but also that it promotes equality and eliminates potential discrimination and offers additional opportunities to advance equality.

Where you identified any possible negative impacts on individuals and groups with protected characteristics, you need to complete a mitigating action plan (Section H below). After your mitigating action plan has been implemented, you need to inform the EAI Team by sending the same form again with the notification of the date when the mitigation action plan was completed.

A. Name, goal and the expected outcomes of the programme/ activity

The GLA/Mayor have set a target of becoming carbon net zero by 2030 and an essential enabler to achieve this is providing sufficient electrical capacity at fire stations and support premises. The

London Fire Brigade currently operates from 103 fire stations located throughout greater London.

The Brigade have a carbon set strategy, which encompasses opening the infrastructure (upgrading power supply across the estate), alternative fuels and offsetting, and fleet decarbonization. HVO is an alternative fuel, which will help reduce fleet carbon emissions, as an interim solution while the Brigade works towards obtaining a fully electric fleet.

HVO is a paraffinic, synthetic diesel and is a drop-in replacement for conventional mineral diesel. Unlike first generation biodiesel, hydrogen is used as a catalyst in the creation process instead of methanol. This makes it more clean burning than other renewable diesel alternatives.

HVO is created from vegetable fats and oils and putting them through a hydrogenation and isomerisation process which removes impurities. The process breaks down existing molecules and builds them up again, leaving a final product with consistent carbon chains but without the impurities that are common in mineral diesel and biodiesel. Hydrogenation removes all the oxygen from the oils, meaning it has a much longer shelf life than mineral diesel.

HVO's chemical structure is nearly identical to that of mineral diesel, this means it can be used as a drop-in alternative with no modifications or changes necessary to the existing fleet, making it a complete replacement for mineral diesel. Drop-in fuels such as HVO are widely supported by commercial vehicle manufacturers under standard servicing and warranty regimes. European Standard EN 15940 covers HVO and similar fuels. There is no adverse impact on performance, servicing, or warranties by using HVO instead of, or alongside mineral diesel– this has been confirmed by Scania and Mercedes for our heavy fleet. Babcock are in the process of providing a full list of vehicles which are unable to use HVO fuel.

HVO can be stored in the same bulk tank and used in the same way as mineral diesel fuel; HVO is more stable than mineral diesel, with a low water content and has up to a ten-year shelf life, compared to the one-year shelf life of mineral diesel.

B. Reason for Equality Impact Assessment

Please delete as applicable:

- A new activity

C. Names of the team responsible for the programme/ activity

Responsibility for the EIA:

Name: Paul Cook

Job title: Head of Energy and Carbon Reduction

Department: Property and TSS

Responsibility for the whole activity:

Name: Laura Birnbaum

Job title: Assistant Director for Property and TSS

Department: Property and TSS

D. Who is this activity for, who is impacted by it (all LFB staff, specific department, external communities)

HVO is a drop in replacement fuel for mineral diesel. Crews can order this from POMS in the same way they would order mineral diesel. Fuel is ordered by station personnel at each station that has a bulk fuel tank (37 across the estate). This change will therefore only impact operational personnel who are responsible for ordering bulk fuel to stations. From a wider perspective, reducing the Brigade's carbon emissions through using a biodiesel will help to reduce the Brigade's impact on climate change and pollution. This will have a positive impact on the communities LFB serve across London.

E. What other policies/documents are relevant to this EIA?

Carbon Net Zero Strategy

F. Equality and diversity considerations

Describe the ways how your activity meets the conditions of the due regard of the PSED and how LFB employees and communities of London may be affected by your activity, especially those ones with protected characteristics. Explain whether your programme/activity may disproportionately affect any group named below?

Protected characteristics Equality Act 2010:

- Age
- Disability/Barrier
- Gender and gender reassignment
- Marriage and civil partnership
- Pregnancy and maternity
- Race including ethnicity and nationality
- Religion or belief



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- Sexual orientation

Also considering:

- Caring responsibilities
- Socio-economic backgrounds

At the end of your explanation, please, list the sources you have used.

Age

Climate change has been identified as the biggest health threat of the 21st century, with the potential to reverse years of improvements in global health and increase the pressure on health systems. Climate change is linked to human health through multiple and complex pathways.

Climate change increases the frequency, magnitude and duration of extreme climate and weather events such as heatwaves and heavy rainfall. Excess heat places additional pressure on the heart, brain and lungs, increasing the death rate from cardiovascular, cerebrovascular and respiratory diseases, particularly for those with pre-existing health conditions. Elderly people are particularly vulnerable to heat-related illnesses and children under 1 to the health risks of heat and dehydration. In the last 20 years climate-related heat mortality in elderly people is estimated to have increased by 54 per cent (London School of Economics).

A review commissioned by the GLA provides the most up-to-date summary of the significant body of scientific evidence showing that air pollution poses a serious risk to people's health at every stage of life, including prior to birth. The latest evidence shows that adverse health effects are seen even in relatively low air pollution environments, below those experienced in London Find. The review also confirms that air pollution caused by traffic is a major issue in London, and that schoolchildren are especially vulnerable to developing health complications as a result. Children living in London are particularly at risk of developing lifelong, chronic conditions, including poorly developed lungs, asthma, high blood pressure, inattention and hyperactivity, and mental illness (GLA).

Use of HVO will reduce the Brigade's carbon emissions, helping to limit climate change and improve air quality. Older and younger people can be more susceptible to heat and poor air quality, so the work to reduce the Brigade's emissions may impact the very young and old in a more positive way.

Disability/Barrier

Extreme heat and drought due to climate change are also linked to increasing risk and spread of wildfires. Wildfire smoke and ash increase illness and death related to air pollution through the release of harmful ground-level ozone and particulate matter pollutants, which can damage the heart and lungs. Fires can also reduce opportunities for exercising outdoors (LSE).

Air pollution has a negative effect on a number of different aspects of human health. In London, 9,400 premature deaths are attributed to poor air quality and a cost of between £1.4 and £3.7 billion a year to the health service (London Councils data).

Gender and gender reassignment

Air pollution and climate change impact all genders, increasing the risk of respiratory disease for example.

The London School of Economics (LSE) note that climate impacts are reversing gains in gender equality. Women and girls are disproportionately impacted by the climate crisis, which amplifies existing inequalities and builds on societal expectations related to gender roles. They face greater hurdles to climate adaptation, significant economic repercussions, increased unpaid care and domestic work, and a higher risk of violence due to the crisis's compounding impacts.

While women and girls experience disproportionate impacts from climate change at the global level, the effects are not uniform. Looking at climate change through the lens of intersectional feminism, the way in which various forms of inequality often operate together and exacerbate each other, it is clear that climate change risks are acute for indigenous and Afro-descendent women and girls, older women, LGBTIQ+ people, women and girls with disabilities, migrant women, and those living in rural, remote, conflict and disaster-prone areas (UN Women).

The use of HVO will not negatively or positively impact more on men, women or non-binary people. However, the United Nations report that the climate crisis is not "gender neutral". Women and girls experience the greatest impacts of climate change, which amplifies existing gender inequalities and poses unique threats to their livelihoods, health, and safety. Reducing the Brigade's impact on climate change will support lessening of the impacts of climate change on Women and Girls across the world.

This project does not use any gendered language.

Pregnancy and maternity

This project does not exclude pregnant people, the benefits from moving to low carbon technologies will be for everyone. HR data team don't capture data on numbers of pregnancies.

A review commissioned by the GLA provides the most up-to-date summary of the significant body of scientific evidence showing that air pollution poses a serious risk to people's health at every stage of life, including prior to birth. Poor air quality can also increase the risk of premature birth and low birth weight. The work proposed in the opening the infrastructure workstream will positively impact staff regardless of their protected characteristics. The works will increase the number of low carbon technologies across the Brigade. This includes electric cookers, air source heat pumps and electric vehicle chargers and an electric floor. Using low carbon technologies will reduce the Brigade's carbon emissions, helping to limit climate change and improve air quality. Older and younger people can be more susceptible to heat and poor air quality, so the work to reduce the Brigade's emissions may impact the very young and old in a more positive way.

Race including ethnicity and nationality

Research shows that those exposed to the worst air pollution are more likely to be deprived Londoners and from Black, Asian and Other Underrepresented Ethnic Groups.

Areas where white Londoners were most likely to live had also shown some improvement but still had the lowest average concentrations. For nitrogen dioxide this varied across the non-white ethnic groups, with concentrations on average 16 – 27 per cent higher in areas where Black, Asian and Other Underrepresented Ethnic Group Londoners were most likely to live compared to white Londoners. Similarly, in 2013, annual average nitrogen dioxide was between 4.8 - 10.6 µg/m³ higher in areas where Black, Asian and Other Underrepresented Ethnic Group Londoners were more likely to live (GLA data). The works carried out to open the infrastructure will allow the Brigade to reduce carbon (and therefore air emissions), impacting positively on Black Asian and Minority Ethnic communities.

<https://www.lse.ac.uk/granthaminstitute/explainers/how-does-climate-change-impact-health/>

https://www.london.gov.uk/sites/default/files/london_health_burden_of_current_air_pollution_and_future_health_benefits_of_mayoral_air_quality_policies_january2020.pdf

[GLA Datastore.](#)

G. Evidencing Impact

Please answer the following four questions:

G1.

a. List all the internal/external stakeholders and organisations you have consulted or contacted regarding your activity, along with the insights gained from these interactions?

b. Explain how you have gained and evaluated your insights and whether you intend to conduct a follow-up or seek post-activity feedback from those stakeholders?

Operational personnel have been consulted by working with a group commander for central operations as well as the staff officer to AC fire stations. A trial was carried out at Croydon and Lewisham fire stations, feedback will be collated via an online form. The trial started in August 2023 and completed in February 2024. Feedback forms have been sent to stations in March 2024.

Babcock Engineering- the Brigade's Fleet provider have been involved in the 6-month trial and have been monitoring the impact of using HVO in Brigade vehicles. No negative impacts have been reported.

Discussions with the Sustainable Development (SD) team have taken place, an SDIA was completed and signed off in July 2023. The SD team consider Workstream 2 of the CNZ strategy will have a positive impact on sustainability as it will allow the Brigade to stop using fossil fuels and reduce carbon emissions. Agreed that sustainability questions will be included in all tender documents, these will be reviewed by the SD team during the tender process. The SD team require no further action.

The procurement department have been part of the trial and are currently carrying out a tender exercise to sustainably source HVO for all 37 strategic bulk fuel tanks. The tender exercise is expected to be completed by May 2024.

G2. Have you faced any gaps in evidence for assessing your activity's impact, and if so, can you justify proceeding with the EIA without addressing them or are you considering a mitigation action plan?

N/A

G3. What adjustments have you considered for people with protected characteristics, and how does your activity promote equality of opportunity and caters for equity for them?

Switching from mineral diesel to HVO has a positive impact on several protected characteristics (see section F):

- Age
- Disability
- Gender
- Pregnancy
- Race

All of these protected characteristics are disproportionately impacted by climate change and air pollution. Use of HVO will reduce the Brigade's carbon emissions, consequently having a positive impact on air pollution and climate change.

G4. How do you communicate the activity to those involved, especially with protected characteristics, and have you considered diverse formats such as audio, large print, easy read, and other accessibility options in various materials?

Communications are due to go out to stations regarding changing to using HVO as an alternative to mineral diesel. To ensure the comms are accessible to all they will align with the Accessible Communication guidance document. The language and structure will be kept simple, if images are used they will not contain text, and will serve as an extra for people who can see them, there will be no information included in an image that isn't included in the text.



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H. Mitigating action plan (where an adverse impact has been identified, please record the steps that are being taken to mitigate or justify it?)

Protected characteristic and potential adverse impact	Action being taken to mitigate or justify	Lead person/department responsible for the mitigating action
1.		
2.		
3.		
4.		

I. Signed by the Submitter

Name: Milly Osborne

Rank/Grade: FRS D

Date: 08/03/2024

Part 2: Inclusion team to complete - feedback and recommendations

J. EIA Outcomes

Select one of the four options below to indicate next steps:

Recommendation 1: No change required – the assessment showed that the activity is/will be robust.

K. Feedback

Please specify the actions required to implement the findings of this EIA and how the programme/ activity's equality impact will be monitored in the future. It may be helpful to complete the table.

Recommendation 1: No change required – the assessment is that the activity is robust.

HVO fuel strategy, the EIA led to Recommendation 1, indicating that no changes are necessary due to the anticipated robustness of the activity. The strategy stands out for its extensive list of positive consideration of diverse colleagues, reflecting a commitment to operational effectiveness.

For future EIA submission:

Utilise HotWire resources library for Equality, Diversity, and Inclusion updates. This repository provides valuable information on data and supporting charities.

Link: [Equality, Diversity and Inclusion Resources](#)

L. Sign off by EIA Inclusion team

Date: 26/03/2024

Sustainable Development Impact Assessment Checklist

Project Name/ Policy Name & No: HVO as a drop in replacement for DERV

Contact Person: Milly Osborne

Date completed: 30/05/2023

Please send through the completed checklist with a copy of the project PID or the draft policy to environment@london-fire.gov.uk. For existing policies undergoing minor amendments, please send through a marked up copy of the policy, with the original SDIA.

Other impact assessments completed				Yes	No
1. Has an Equalities Impact Assessment been completed?				☒	☐
2. Has a Health, Safety and Wellbeing assessment been completed?				☒	☐
Environmental Impacts					
3. Will this consume any of the following (please tick those that apply and state how and if this would increase or decrease our consumption):					
Gas	☐	Electricity	☐	Water	☐
Petrol or diesel	☐	Hazardous chemicals	☐	Other natural resources e.g. timber	☒
Comments: HVO is a paraffinic, synthetic diesel and is a drop-in replacement for conventional mineral diesel. Unlike first generation biodiesel, hydrogen is used as a catalyst in the creation process instead of methanol. This makes it more clean burning than other renewable diesel alternatives. HVO is created by collecting vegetable fats and oils and putting them through a hydrogenation and isomerisation process which removes impurities. The process breaks down existing molecules and builds them up again, leaving a final product with consistent carbon chains but without the impurities that are common in mineral diesel and biodiesel. Hydrogenation removes all the oxygen from the oils, meaning it has a much longer shelf life than regular diesel. HVO fuel produces 90% less carbon dioxide (CO2) emission compared to mineral diesel.					
4. Will this produce or reduce our production of (please tick those that apply and describe what and how):					
Non-hazardous waste	☐	Hazardous waste (see PN 862)	☐	pollutants to air, land or water?	☒
Comments: HVO reduces well to wheel carbon emissions. Overall carbon emissions will be reduced by 90% compared to carbon emissions from mineral diesel, therefore reducing the negative impact the Brigade has on the environment.					
5. Will this impact (positively or negatively):				Yes	No

a. Operational/business travel by staff	☐	☒
b. Travel/deliveries by our suppliers	☐	☒
c. Environmental protection at incidents	☐	☒
d. a Site of Special Scientific Interest	☐	☒
e. Gardens or other wildlife at stations/brigade sites (e.g. nesting birds or bats)	☐	☒

Comments:

[Click here](#) to enter text.

Procurement	Yes	No
6. Will this result in the purchase of goods, services or works or influence how they are procured?	☒	☐
f. Is this for a purchase of greater than £1m?	☐	☒
g. Will this use/result in a tender for manufactured goods such as electronics, textiles, and building materials?	☐	☒
h. Will this service require low skilled/low paid employees?	☐	☒
i. Will the goods consume utilities or consumables?	☐	☒
j. Does this involve major works taking place?	☐	☒
k. If so are BREEAM and Ecological surveys required?	☐	☐
l. Will this support future cost avoidance?	☐	☒
m. Could all or part of the purchase be provided by small or local businesses?	☒	☐
n. Could this be delivered by a voluntary/community sector organisation?	☐	☒
o. Has a Request For Tender been submitted to Procurement through hotwire?	☒	☐

Comments:

HVO could be procured from a SME, however they would need to be on the CCS framework, as this is the framework used to procure bulk fuel.

HVO can be produced from sustainable renewable waste feedstocks such as waste cooking oil and residues. Reuse of used cooking oil promotes sustainable resource management, rather than disposing of cooking oil waste in landfill or as hazardous waste. However, question marks remain over the guarantees of ecological sustainability of HVO sources, and the availability of a sustainable HVO supply in the long-term. The choice of oil for HVO is typically Palm Oil. Palm Oil plantations are associated with deforestation and are extremely detrimental to the environment. Procurement can however be specified for supplies without any Palm Oil. As a result, manufacturers are ramping up their non-palm oil sources. This gives confidence in the security of supply of HVO without Palm Oil content going forward. Procurement of HVO will only be supported if it is accepted by the Renewable Transport Fuel Obligation (RFTO). The Brigade should only procure HVO if it comes from

truly sustainable sources.

For the SD Team to complete:

Policy sustainability risk rating: High

Inputs/outputs/ impacts to address in Full SDIA: Approved by Daniel Bellucci.

Date completed: 31/05/2023